OPEN INNOVATION IN SCIENCE

An initiative of the Ludwig Boltzmann Gesellschaft

LAB FOR OPEN INNOVATION IN SCIENCE (LOIS)

PROGRAMME INFORMATION AND MODULE DETAILS

VIENNA / AUSTRIA

LOIS TIMELINE

The LOIS Curriculum comprises 13 individual training modules within a 12-month period. It is completed by a Kick-Off and a Closing Event.

15–16 April 2016
Kick-Off and Module 1

5–8 May 2016
Module 2, 3 and 4

17–19 June 2016
Module 5, 6 and 7

30 Sept. – 2 Oct. 2016
Module 8, 9 and 10

21—22 October 2016
Module 11

18—19 November 2016
Module 12 and 13

17 February 2017
Closing Module

Half a day in April 2017 TBD
Closing Event

CURRICULUM

The individual modules are grouped into basic and specialisation modules with regard to content and cover six major blocks.

KICK OFF

Faculty Member(s): Eva Guinan (Harvard Medical School, US), Rudy Dekeyser (Health Economics Fund, BE), Marion Poetz (Copenhagen Business School, DK)

Date: 15 April 2016

Location: Aula der Wissenschaften, Wollzeile 27a, 1010 Vienna

Content:

- LOIS goals, framework, roles and culture
- LOIS teambuilding
- Keynote speech by Eva Guinan, Harvard Medical School, USA
- Keynote speech by Rudy Dekeyser, Health Economics Fund, Belgium
- OIS good-practice examples and experiences
- OIS lab-project introduction

BASIC MODULES (MODULE 1-4)

The basic modules for Open Innovation in Science (OIS) provide participants with an overview of state-of-the-art Open Innovation principles, methods, determinants and effects in the context of corporate innovation initiatives; classify them vis-à-vis existing open science concepts such as open access, open data or open evaluation; and facilitate the development of a more comprehensive framework for applying Open Innovation along the entire process of scientific discovery and exploitation.

MODULE 1 – OPEN SCIENCE WITHIN OPEN INNOVATION IN SCIENCE

Faculty Member(s): Katja Mayer (University of Vienna, AT)

Date: 16 April 2016

Location: Aula der Wissenschaften, Wollzeile 27a, 1010 Vienna

Content:

- Introduction to the concepts of open science, open data and open access
- Potential and challenges of open-access publishing, state-of-the-art sharing practices of research data and results, new modes of global scientific collaboration and new approaches to open evaluation/reviewing
- Integration of open science in research practices
- Positioning open science and Open Innovation in Science

MODULE 2 – CREATING AND CAPTURING VALUE IN SCIENCE AND BUSINESS

Faculty Member(s): Marcel Bogers (University of Copenhagen, DK), Christoph Grimpe (Copenhagen Business School, DK)

Date: 5 May 2016

Location: Narrenturm, Uni Campus Hof 6, Spitalgasse 2, 1090 Vienna

Content:

- The institutional logics of research institutions and corporate firms
- The "business model concept" in science and business: How is value created in science and business and for whom, how is it delivered, who captures it, why and how?
- Innovation processes in science and business
- Science thinking and innovation thinking along the process of scientific discovery and exploitation
- The role of openness, external knowledge sourcing and collaboration in creating, delivering and capturing value in science and business
- Industry-science links and their governance

MODULE 3 – OPEN INNOVATION BASICS

Faculty Member(s): Karin Beukel (University of Copenhagen, DK), Marcel Bogers (University of Copenhagen, DK), Marion Poetz (Copenhagen Business School, DK)

Date: 6 and 7 May 2016

Location: Narrenturm, Uni Campus Hof 6, Spitalgasse 2, 1090 Vienna

Content:

- Open Innovation basics and principles in business
- Good-practices and case studies of Open Innovation
- Distributed sources of innovation and knowledge
- Open Innovation search and collaboration methods and practices
- Antecedents and consequences of Open Innovation
- Structural, cultural and strategic arrangements in organizing for Open Innovation
- Intellectual property rights (IPR) basics, IPR strategies and IPR management in Open Innovation systems
- Opportunities, risks and contingency factors related to applying Open Innovation

MODULE 4 – MAPPING OPEN INNOVATION IN SCIENCE

Faculty Member(s): Marion Poetz (Copenhagen Business School, DK)

Date: 8 May 2016

Location: Narrenturm, Uni Campus Hof 6, Spitalgasse 2, 1090 Vienna

Content: An interactive workshop aiming at:

- Mapping options for applying Open Innovation principles and methods along the entire scientific discovery and exploitation process, classifying them and developing an Open Innovation in Science funnel
- Identifying opportunities and challenges related to applying Open Innovation principles and methods in science
- Discussing which problems related to contemporary academic activities could/could not be solved by applying Open Innovation principles and methods in science

SPECIALISATION MODULES (MODULE 5-13)

The specialisation modules in OIS enable participants to develop in-depth knowledge about specific OIS methods, antecedents and consequences along the entire process of scientific discovery and exploitation.

MODULE 5 – CROWD SCIENCE AND CROWD FUNDING

Faculty Member(s): Henry Sauermann (Georgia Institute of Technology, Scheller College of Business, US)

Date: 17 June 2016

Location: Österreichisches Museum für Volkskunde, Laudongasse 15-19, 1080 Vienna

Content:

- Basics approaches, mechanisms and applications of crowdsourcing
- Applications and good-practice examples of crowdsourcing mechanisms in science (crowd science)
- Characteristics of crowd science projects
- Benefits and challenges of crowd science
- Case examples of applying crowdsourcing in health sciences (e.g., Foldit)
- Type and nature of tasks along the scientific discovery and exploitation process for which particular benefits or challenges of crowd science are likely to be most pronounced
- Crowdfunding science
- Outlook – prospects of applying crowdsourcing in (health) sciences

MODULE 6 – USER-DRIVEN SCIENCE

Faculty Member(s): Marion Poetz (Copenhagen Business School, DK), Leid Zejnilovic (Catolica-Lisbon School of Business and Economics, and Patient-Innovation, PT)

Date: 18 June 2016

Location: Österreichisches Museum für Volkskunde, Laudongasse 15-19, 1080 Vienna

Content:

- Case studies and good-practice examples of users and user communities driving or significantly contributing to scientific discovery and/or exploitation in (health) sciences (including an introduction to the process and outcome of CRIS – Crowdsourcing Research Questions in Science, a pilot project related to involving patients who suffer from mental illnesses, their families, caretakers, employers, doctors, etc., in the process of developing research questions and hypotheses for basic science)
- Opportunities, challenges and contingency factors related to involving users in (health) sciences
- Outlook – prospects of involving users in (health) sciences

MODULE 7 – COLLABORATIVE SCIENCE

Faculty Member(s): Markus Nordberg (CERN, CH) , Philipp Tuertscher (VU University Amsterdam, NL)

Date: 19 June 2016

Location: Österreichisches Museum für Volkskunde, Laudongasse 15-19, 1080 Vienna

Content:

- Basic principles, concepts and case examples related to collaborative science
- Featuring the case of the ATLAS Experiment and other ongoing collaborative science initiatives at CERN
- Establishing structures in collaborative science projects
- Opportunities, challenges and risks involved in collaborative science projects
- Mechanisms for managing problems and conflicts in collaborative science
- Antecedents and consequences of initiating or participating in collaborative science projects related to knowledge ownership, co-authorships, tenure processes, etc.
- Outlook – prospects of collaborative (health) science

MODULE 8 - SCIENCE-BASED ENTREPRENEURSHIP AND INNOVATION

Faculty Member(s): Oliver Alexy (Technische Universität München, DE)

Date: 30 September 2016

Location: Valneva, Campus Vienna Biocenter 3, 1030 Vienna

Content:

- Basic principles and mechanisms related to translating science into innovation (commercial and non-commercial modes of exploiting scientific knowledge): university-industry collaborations, science-based entrepreneurship (including science-based social entrepreneurship), patenting and licensing, etc.
- The role of openness and external partnering in science-based entrepreneurship and innovation
- Good-practice examples and case studies related to translating (health) science into innovation
- Specific opportunities and challenges involved in science-based entrepreneurship and innovation in the field of health sciences

MODULE 9 – EXTERNAL PARTNERING FOR COMMERCIALIZING

Faculty Member(s): Tbc

Date: 1 October 2016

Location: Valneva, Campus Vienna Biocenter 3, 1030 Vienna

Content:

- Identification and selection of external partners for commercializing science
- Opportunities and challenges involved in partnering with externals
- Managing the differences in science vs. business related to objectives, pace, language, etc., in collaborating with external partners (companies, VCs)
- Contracting and IPR in the context of commercializing science
- The role and value of tech-transfer offices in supporting the commercialization of science
- Working with/using intermediaries and platforms for commercialization science (e.g., researchers as suppliers to platform challenges)
- Human resource management and incentives in the context of for commercialization of science
- Good-practice examples and case studies related to external partnering in the commercialization of (health) science

MODULE 10 – TECHNOLOGICAL COMPETENCE LEVERAGING

Faculty Member(s): Reinhard Prügl (Zeppelin University, DE)

Date: 2 October 2016

Location: Valneva, Campus Vienna Biocenter 3, 1030 Vienna

Content:

- Mapping statistics related to the utilization of science-based knowledge and technologies
- Systematically identifying, evaluating and selecting potential application areas for science-based technological resources and competences (patented or non-patented) using Open Innovation search methods
- Translating science-based technological competences and resources into value propositions for one or more application areas (e.g., markets)
- Developing implementation strategies for qualified application areas
- Good-practice examples and case studies related to technological competence leveraging in (health) sciences

MODUL 11 – ECOSYSTEMS FOR OPEN INNOVATION IN SCIENCE

Faculty Member(s): Martin Wallin (Chalmers University of Technology, SWE)

Date: 21 and 22 October 2016

Location: Österreichische Akademie der Wissenschaften, Doktor-Ignaz-Seipel-Platz 2, 1010 Vienna

Content:

- Ecosystems that facilitate Open Innovation in Science on the network level (stakeholders, actors and their relations in the external ecosystem)
- Ecosystems that facilitate Open Innovation in Science on the university/department/research unit level (organisational designs, cultural and structural arrangements, strategic antecedents, human resource management, etc.)
- Relevant characteristics of open (research) organisations and entrepreneurial universities
- Interactive workshop discussing and determining problems related to applying Open Innovation principles and methods in existing ecosystems and developing ways for addressing/overcoming them

MODUL 12 – INDIVIDUAL CAPACITIES FOR OPENNESS AND SHARING IN SCIENCE

Faculty Member(s): Stefan Haefliger (Cass Business School, UK),
Tinna C. Nielsen (Move The Elephant for Inclusiveness, DK)

Date: 18 November 2016

Location: Technisches Museum, Mariahilfer Str. 212, 1140 Vienna

Content: Interactive workshop for:

- Training the ability to make connections and think outside of one's own discipline, questioning fundamental assumptions about one's own scientific practice and about the role and understanding of other sciences and scientific practices
- Experimenting with understanding and presenting work from other disciplines, reflecting on the ability to understand and selectively perceive and evaluate within the frame of one's own practice
- Questioning the individual potential for openness, revealing deeply ingrained beliefs, training the ability to navigate in the unknown
- Learning about concepts and methods for increasing the individual capacity for openness and sharing in science

MODUL 13 – DISSEMINATING AND COMMUNICATING SCIENCE

Faculty Member(s): Maria Theresa Norn (The Think Thank DEA, DK)

Date: 19 November 2016

Location: Technisches Museum, Mariahilfer Str. 212, 1140 Vienna

Content:

- Basic principles, methods and channels for communicating and disseminating science
- Relevant stakeholder groups, their characteristics and needs related to obtaining information about/from science
- Opportunities and challenges involved in increased demands for, and levels of, science communication and dissemination
- Good- and bad-practice examples related to communicating and disseminating science
- Using Open Innovation methods and tools (including platforms, social networks, etc.) for communicating and disseminating sciences
- Specific challenges involved in communicating and disseminating within the field of health sciences

LOIS CLOSING – INTEGRATING OPEN PRACTICES IN SCIENCE

Faculty Member(s): Stefan Haefliger (Cass Business School, UK), Marion Poetz (Copenhagen Business School, DK)

Date: 17 February 2017

Location: Tbc

Content: Interactive workshop for discussing:

- Whether and, if so, how, the application of Open Innovation principles and methods can become a sustainable model for creating and capturing value in science, i.e., how OIS is done not for the sake of openness, but for actually increasing the quality and impact of science
- How do Open Innovation principles and methods actually support (health) science, what makes them sustainable (or not), and which practices does it take to sustainably incorporate Open Innovation methods and principles?
- Insights into institutionalization practices, sustainable sharing, cumulative cross-disciplinary work, and how to found invisible colleges
- Reflections and potential modifications related to the OIS map developed in Module 4

CLOSING EVENT

Faculty Member(s): Marion Poetz (Copenhagen Business School, DK)

Date: April 2017

Location: Tbc

Content:

- Reflections upon LOIS
- Lab project update
- Graduation ceremony
- Keynote speech
- Outlook and next steps

We will inform you about further progress as soon as possible.
You will receive the syllabus for each module one month in advance via email.

FOR FURTHER INFORMATION PLEASE KINDLY CONTACT:

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